

Title (en)
Tracking type laser interferometer

Title (de)
Laserinterferometer mit Nachverfolgung

Title (fr)
Interféromètre laser de type suivi

Publication
EP 2244055 B1 20130529 (EN)

Application
EP 10159846 A 20100414

Priority
JP 2009097810 A 20090414

Abstract (en)
[origin: EP2244055A1] A tracking type laser interferometer includes: a transparent reference sphere which is provided in a fixed position; a recursive retroreflector provided on a movable body; a carriage designed to be rotated around a center of the reference sphere; a length measuring unit fixedly provided on the carriage, including an optical system for reciprocating a laser beam between the recursive retroreflector and the reference sphere and serving to carry out a gauge interference over a distance between the recursive retroreflector and the reference sphere; a tracking position detecting unit fixedly provided on the carriage and serving to output a signal corresponding to an amount of shift between optical axes of lights which are incident on and reflected by the recursive retroreflector; and a controller for controlling the rotation of the carriage so that the amount of shift between the optical axes which is obtained by the tracking position detecting unit is zero, wherein a laser beam incident on the reference sphere is focused on the center of the reference sphere and is reflected by a spherical surface opposed to an incident side of the laser beam.

IPC 8 full level
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CPC (source: EP)
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Cited by
CN107687809A; CN102193179A; EP2369372A3; CN108458642A; US10429661B2

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